The Patient Care Continuum

Dispatch Quality Improvement Unit

July 16, 17, & 18, 2012



Objectives

- **Able to identify which factors are involved in improving the delivery of care to the patient.**
- **Identify how the EMD can improve efficiency in call processing**
- **Explain how an EMD can expedite the delivery of care to the victim of cardiac arrest.**
- **To recognize the indicators of cardiac arrest or ineffective breathing and explain how this information can be relayed to responders.**


The Patient Care Continuum…..

Focus on

- Cardiac arrest victim
- Expediting Pre-Arrival Instructions (PAIs) for suspected arrests
- The first phase to reduce time to initiation of response and delivery of care

This is a Paradigm Shift in our approach to the protocol!

GOALS:

- To decrease time to provision of PAIs (chest compressions).
- To decrease the time from call receipt to dispatching resources (Call receipt to WRS), especially for ECHO and DELTA calls.
- This will require a multitude of changes, but we have begun the process.

Enhancing the Delivery of Care

- *Early Recognition* of Ineffective Breathing or Cardiac Arrest
- Reducing the time to compression
- Communicating the status and criticality

Early Recognition of Ineffective Breathing or Cardiac Arrest

- Recognizing the **descriptions, identifiers and indicators** of ineffective breathing and/or cardiac arrest

Ineffective Breathing - ECHOs

- Barely Breathing
- Can't breathe at all
- Fighting for air
- Gasping for air
- Breathing – Just a Little
- Making funning noises
- Not breathing
- Turning blue

New Cardiac Arrest or Ineffective Breathing Situations/Statements

- Stopped breathing
- Heavily
- Very little

Characteristics of Abnormal or Ineffective Breathing

- **Struggle or difficulty with respirations**
- **A slow rate of ventilation/breathing**
- **A decrease in the volume of ventilation (amount of air going in or out)**
- **An irregularity or irregular pattern in breathing**
- **Noisy, gasping or gurgling respirations**
- **A limitation in rate or rhythm**
- **Abnormal discoloration of the skin, blue or cyanosis**
- **Foaming at the mouth**

PRE-ARREST INDICATORS

Not Breathing Situations - ECHOs

- Complete Obstruction (CE #3.c. & 11-E-1)
- Not breathing
- Breathing is uncertain/agonal (2nd Party)
- Hanging
- Strangulation
- Suffocation
- Underwater

Combination of Indicators

- A synergistic effect
- The criticality of the situation is increased when this is combined with the non-responsive or unconscious victim.

Case # 001

- Listen to this incident, which protocol would you use.

- Now listen to the remainder of Case Entry and note if there are any indicators of ineffective breathing.

Case # 001

- Impression of the situation?
- Were there any indicators or descriptions of significance?

Case # 001

- The EMD is hesitant to start, because the caller said the victim was breathing. But remember he is not awake and is changing color and his chest is not rising.

- *This is the point at which the EMD should engage and initiate CPR.*

Early Compressions or Reducing Time To Compressions (TTC)

- Measured from call creation to compression of the chest.

- What are the impedances of achieving this?
 - Do you want to do CPR?
 - When is the last time you saw him?
 - Look at him, Does it look like he's breathing?

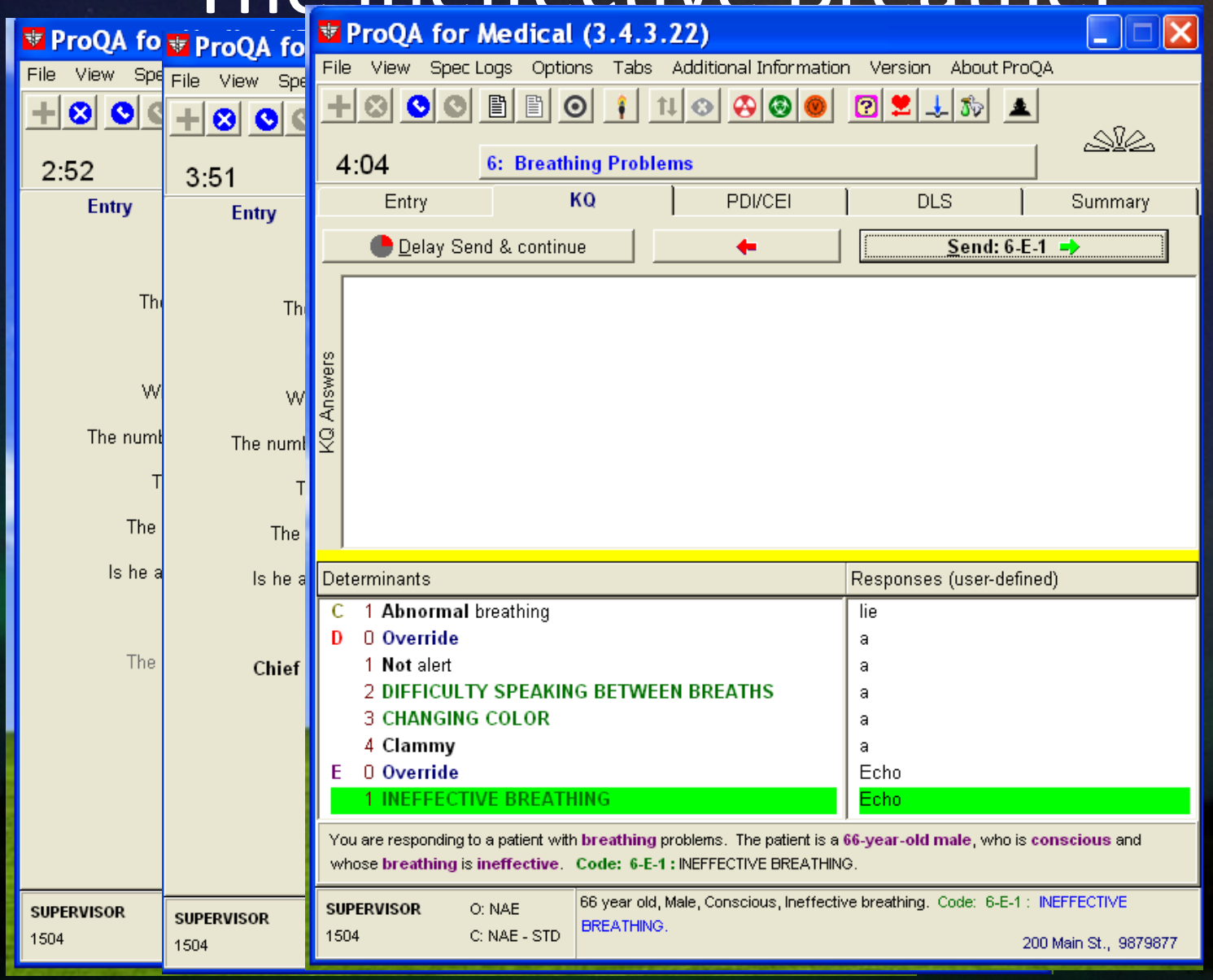
Early Compressions or Reducing Time To Compressions (TTC)

- Once we know that a victim is not breathing or in cardiac arrest, we should take the shortest path to the delivery of care.
- Move as quickly as possible to the "ABC" Protocols to begin the process

Speed is everything!

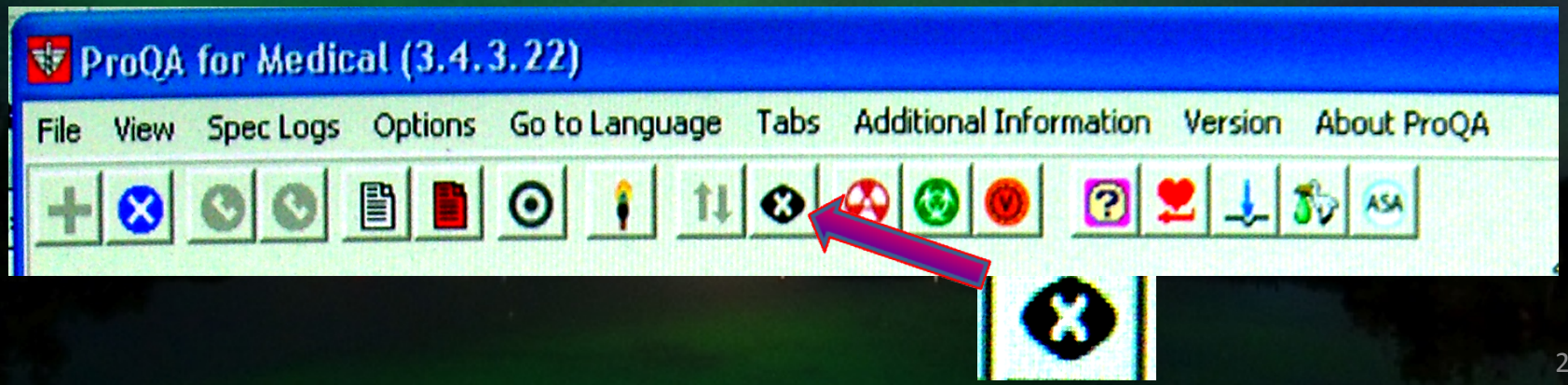
- Minutes count!
- Brain death begins in 4 min from time of collapse
- Victim collapses (witnessed), bystander/family member assesses victim, realizes pt is in trouble, then finds a phone, then calls 911, call is transferred from PSAP to Metro.
- These steps take time!
- If you add more minutes until provision of PAIs (chest compressions) = brain death

The Ineffective Breather



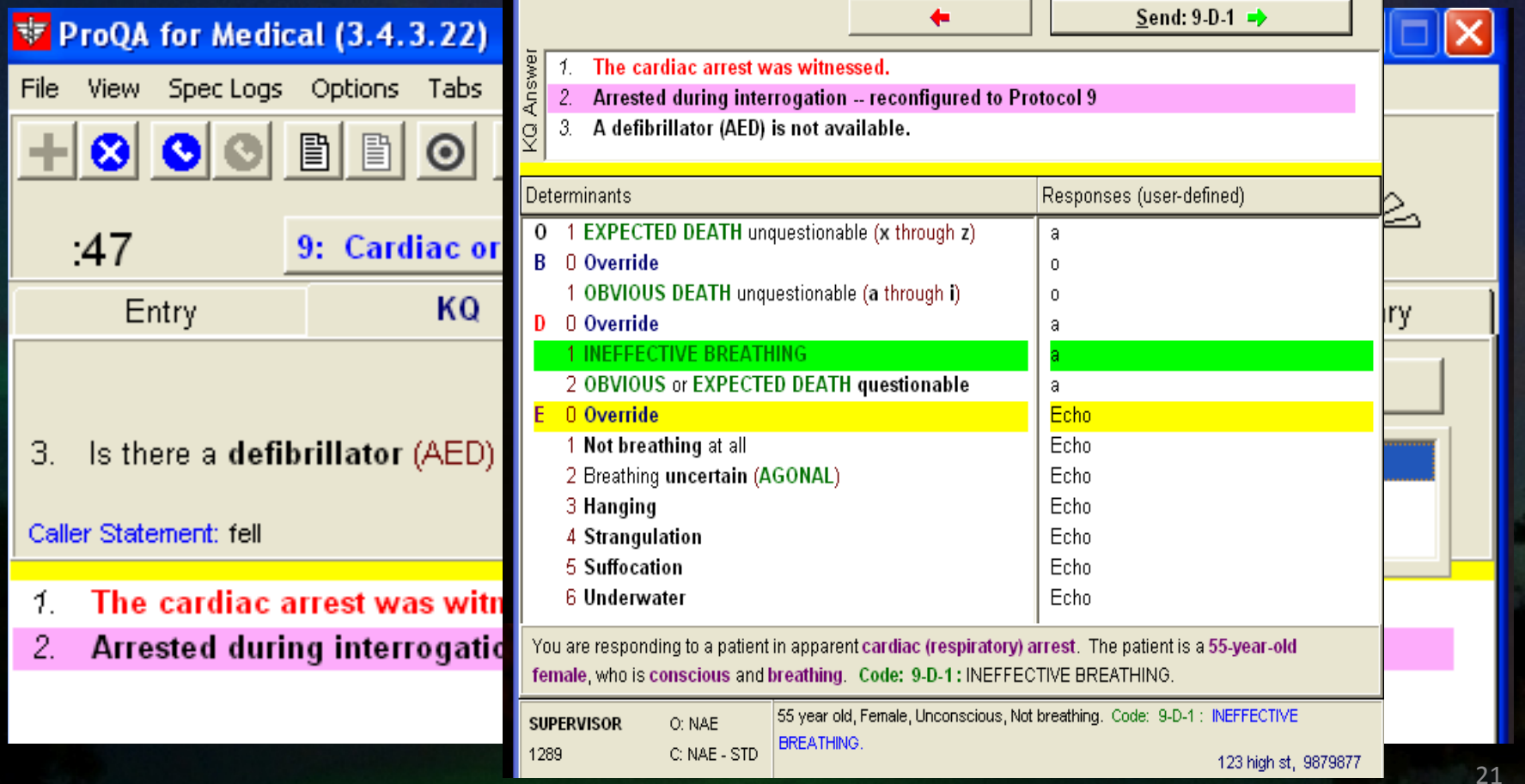
Early Compressions or Reducing Time To Compressions (TTC)

- You can also use the Cardiac Arrest button with ProQA.
- This button will activate the move quickly to the "ABC" Protocols to begin the process of resuscitation.



The use of the X button





The elimination of the ABT within Case Entry and Individual Protocols

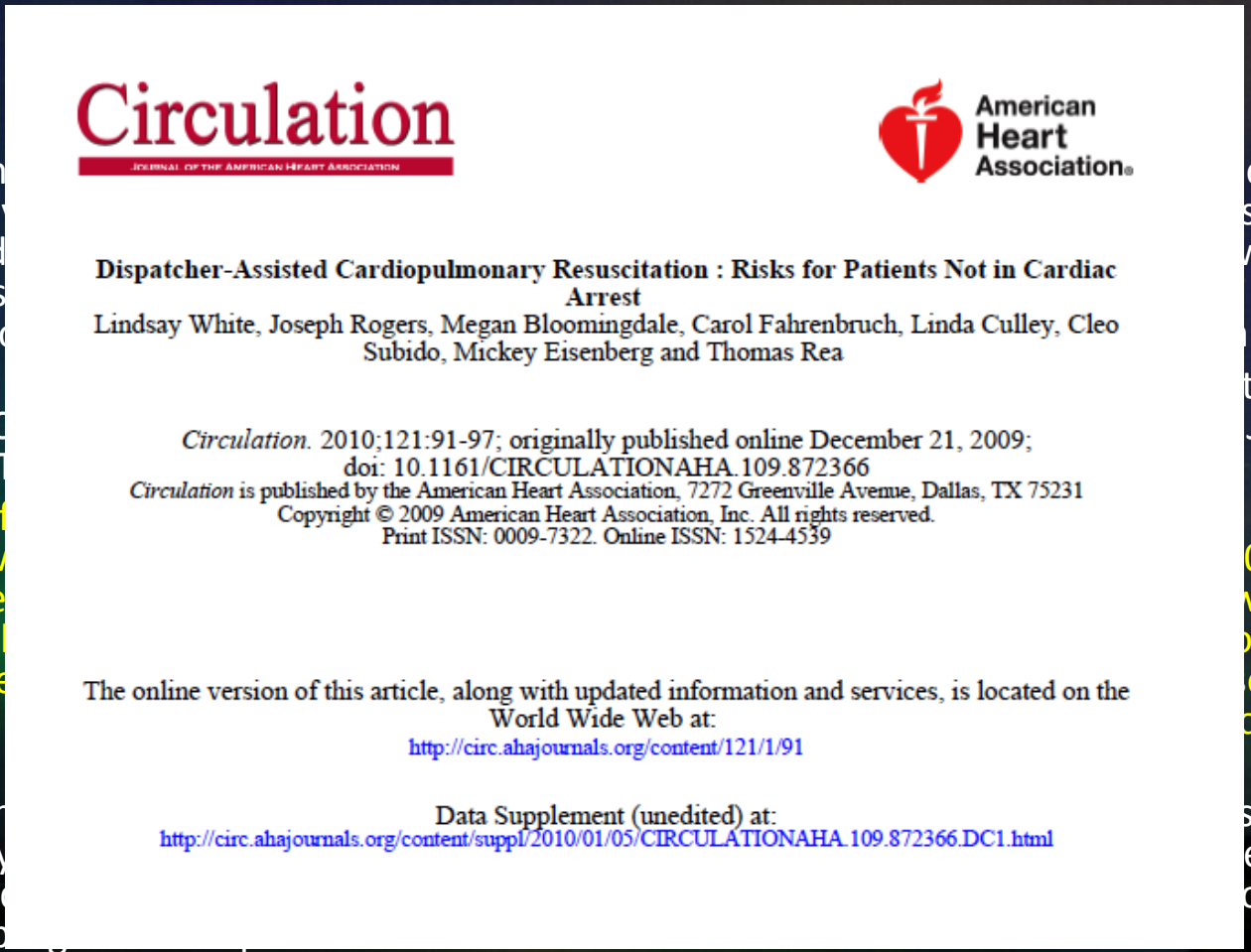
- This is a deviation in the current protocol process that we are taking at the request of the Medical Director.
- We will be working with the academy to address these modifications.

Why eliminate the ABT?

- It takes too long!
- It is very cumbersome!
- It creates the approach that the call taker must be absolutely sure that the pt is indeed in cardiac arrest before providing CC/CPR
- ***The reality is that chest compressions are SAFE, even if it turns out that they are not indicated***

Dispatcher-Assisted Cardiopulmonary Resuscitation: Risks for Patients Not in Cardiac Arrest

- Backgroun… …can increase b… …st. The risk of bystand… …w assertive dispatch is… … CPR for patients n… …pressions.
- Methods : … …tchers provided C… …January 31, 2007. T…
- Results: Of… …55% (938 of 1700) w… …0) were not in arre… …who received c… …f 247) experience… …ed by bystander … …ceral organ injury.
- Conclusion… …spatcher-assisted by… …e established… …ort an assertive p…



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Dispatcher-Assisted Cardiopulmonary Resuscitation : Risks for Patients Not in Cardiac Arrest

Lindsay White, Joseph Rogers, Megan Bloomingdale, Carol Fahrenbruch, Linda Culley, Cleo Subido, Mickey Eisenberg and Thomas Rea

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The elimination of the ABT within Case Entry and Individual Protocols

- We are also looking at speeding up the process within the ABC Protocols and removing some steps from there as well.

Recent Internal Studies in Cardiac Arrest

- In October we reviewed all cardiac arrests within the month that were non-traumatic and Non DB and found:
 - A total 166 Cardiac Arrest Incidents were reviewed
 - In 51 incidents, compressions were started **(31%)**
 - Range in start time was 32 sec. - 7 min. 36 sec.
 - ***Average start time was 4 min. 12 sec.***

Communicating patient status and criticality (Still in the planning stages)

- This information should be captured from the EMD and sent directly to the ePCR for use by the field.
- This information process should be seamless and consistent.
- This should also be part of the MDC information as well.
- What are the impedances of achieving this?

Improving Response Times

- **Efficiency in Call Processing**
- **Rapid Response Processing**

Efficiency in Call Processing

- Measured from call creation to compression of the chest.
- What are the impedances of call processing?
- Standardize greeting

Efficiency in Call Processing

- Standardize greeting ANI/ALI acceptance or confirmation
 - Avoid wasting time
 - If different don't provide examples.
 - Take what they say first!
 - If it's different from the 911-ALI information, verify it, and then accept it.

Rapid Response Processing

- Modify the ProQA process
- Software changes to ProQA
- Modifications to the CAD
- Modifications LAFD Dispatch Policy
- We are in the process of making these changes.
 - Data collection to justify the changes
 - Cardiac Arrest Studies
 - Call Processing Studies

Case # 002

- **INC DATE:**
- **TIME:** **TYPE: 31-D-2**
- **ALG:** **AGE:**
- Listen to all the factors that impede the dispatcher from effectively providing care.

Case # 002

- “Breathing or Not Breathing”??? Doubt is no!
- “Barely awake” and “sort of” breathing
- “Deeply Breathing” at times “not breathing”
- The caller is dealing with the spouse that is panicking and our EMD that is urging her to follow directions.
- Giving Mouth to Mouth
- “Breathing a very little bit”

HOW MANY PRE-ARREST INDICATORS

Case # 002

- At 57 sec. they provide key information that the victim is not breathing. “She’s not breathing they need to hurry.”
- At 3 min. started at Panel C-1.
- Time to Compression (TTC) = 4:30

Case # 003

- **INC DATE:**
- **TIME:** **TYPE: 9-E-1**
- **ALG:** **AGE:**
- Listen to how this case was handled and listen to how the EMD assesses the breathing and level of consciousness repetitively.

Case #003

- Impression of situation?
- Where there any indicators or descriptions of significance?

Case # 003

- **35 sec. = Caller states passed out**
- **45 sec. = Awake and Breathing, 32-D-1**
- **2 min. 10 sec. = Still breathing**
- **2 min. 30 sec. = Reassesses breathing and caller states "I think he is" EMD stresses reassessment and immediately proceeds to CPR.**
- **Inc time – dispatch = 45 sec. 32-D-1**
- **Inc time – TTC = 3 min. 44 sec.**

The Agonal Breathing Tool

- Used only if you have a high degree of certainty that there is no need to use compressions.
- Use it as a monitoring tool but rely on the characteristics present first.
- If the descriptions and characteristics are present then engage in resuscitation.
- WHEN IS DOUBT, PROVIDE PAIs
- *WITHHOLDING OR DELAYING PAIS MAY RESULT IN A POTENTIALLY PREVENTABLE DEATH!!*

Re-Assessment Standards

- If your patient is unconscious, you should be monitoring the patient every 30-60 sec. while maintaining airway control.
- If your patient is conscious then monitor every 90-120 sec.
- Be sure to ask if an AED is available, if you haven't already, especially if your patient is unconscious. AEDs are now required in all government buildings.

Future Changes

- "ABC" Protocol Variations
 - Links or "Go to" boxes changed
 - Several changes are coming
- Software changes
 - CAD and ProQA
- The possible impact of using the ABC Protocol in place of the ABT in numbers.
 - » CCP 12 = 1256 /month (June 2012)
 - » CCP 31 = 2077 /month (June 2012)

Multi-Phased Intradepartmental Implementation Project

A coordinated process involving different bureaus.

- **QI and MFC Monitored**
- **ITA and MIS coordination**
- **LAFD Dispatch Policy modification**

Multi-Phased Intradepartmental Implementation Project

- We are trying to empower the dispatchers to use more of their judgment and experience to minimize the time required to dispatch and Time to Compression.

- We hear and Share their concerns!

Golden Mic Award



EMD- David Brien

Calm, Controlled and Direct

Golden Mic Award
EMD- David Brien

- Call Processing Times:
 - **Answered call to creation = 9 seconds**
 - **Creation to Dispatch = 22 seconds**
 - **Creation to Panel C-1 = 100 seconds**
 - **Creation to Panel C-5 (TTV) = 185 sec. (3 min. 5 sec.)**
 - **Creation to Panel C-7 (TTC) = 230 sec. (3 min. 50 sec.)**

Were Objectives Met -

- Able to identify which factors are involved in improving the delivery of care to the patient.
- Identify how the EMD can improve efficiency in call processing
- Explain how an EMD can expedite the delivery of care to the victim of cardiac arrest.
- To recognize the indicators of cardiac arrest or characteristics of ineffective breathing and explain how this information can be relayed to responders.

Conclusion

- This training presentation represents a significant paradigm shift in the approach to the assessment and management of callers describing signs of ineffective breathing or cardiac arrest.
- It advocates a more direct and efficient method of call processing.
- These changes as well as those that will be coming in the future will require the cooperation of all members.



Credits:

http://spaceweather.com/submissions/pics/g/GApran-Strand-GS_20120124_Aurora_0071_1341308567.jpg

Details:

Today is the name day of Aurora here in Sweden. To celebrate that Ill send a aurora photo from the last winter season.

Credits

- http://spaceweather.com/submissions/pics/f/Francis-Audet-Aurora-Lake-and-Fireflies_1340024857.jpg

Details:

- Auroras, fireflies, ISS, Shooting star. What another fantastic evening north of Quebec City.